



FIG. 1 (PRIOR ART)

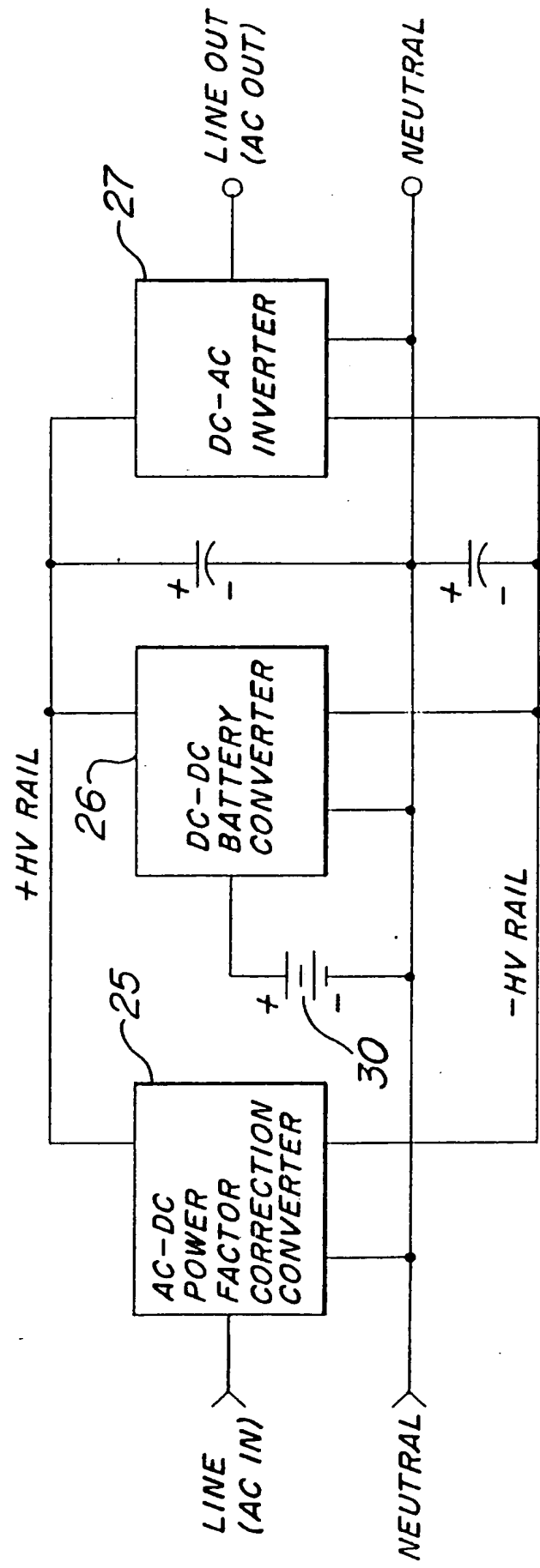


FIG. 2 (PRIOR ART)

This circuit diagram illustrates a prior art full-bridge inverter. It features a center-tapped transformer with its primary connected to a LINE and NEUTRAL input. The secondary has three terminals: the top terminal (labeled 35), the center tap (labeled 36), and the bottom terminal (labeled -HV). The top terminal (35) is connected to the positive terminal of a battery (30) and the anode of diode D1. The center tap (36) is connected to the emitters of transistors Q1 and Q2, and the cathodes of diodes D3 and D4. The bottom terminal (-HV) is connected to the cathode of diode D2 and the emitter of transistor Q4. The bridge consists of four transistors (Q1, Q2, Q3, Q4) and four diodes (D1, D2, D3, D4). Inductors L1 and L2 are connected between the top and center tap, and between the center tap and bottom terminal, respectively. Inductor L3 is connected between the output and the center tap. The output is taken from the top terminal (35) and the center tap (36) through inductor L3 and capacitor C4 to a load (40). A SWITCH CONTROL unit (33) is connected to the gates of transistors Q1 and Q2 via terminals 31 and 32. A capacitor C1 is connected between the LINE and NEUTRAL inputs. The output is labeled LINE OUT.

The circuit diagram shows a power supply system. It starts with a **LINE** input connected to a capacitor **C1**. The **NEUTRAL** line is also shown. A bridge rectifier consists of four diodes: **D7**, **D8**, **D9**, and **D10**. A battery **BATT 30** is connected across the bridge. Two transistors, **Q1** and **Q2**, are part of a switching mechanism controlled by **SWITCH CONTROL MEANS 33**. Inductors **L1** and **L2** are placed in series with the transistor outputs. Diodes **D3** and **D4** are connected to the output lines **35** and **36**. Further components include capacitors **C2**, **C3**, **C4**, **C5**, and **C6**; diodes **D5** and **D6**; and inductors **L3** and **L4**. The final output terminals are labeled **40**.

FIG. 4A

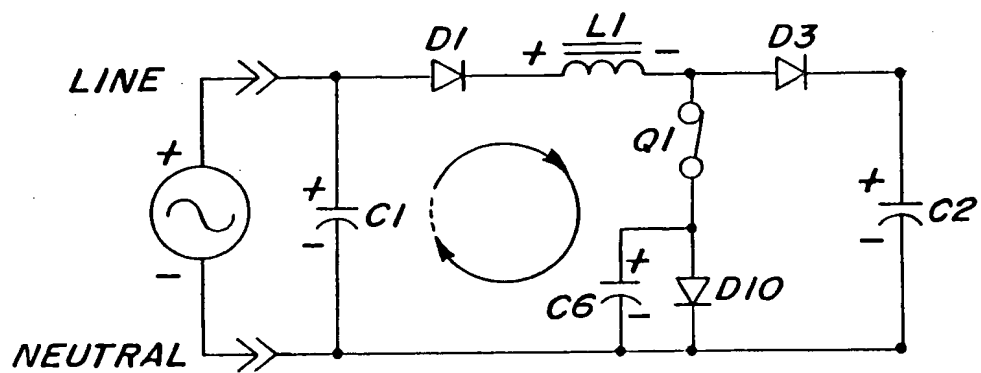


FIG. 4B

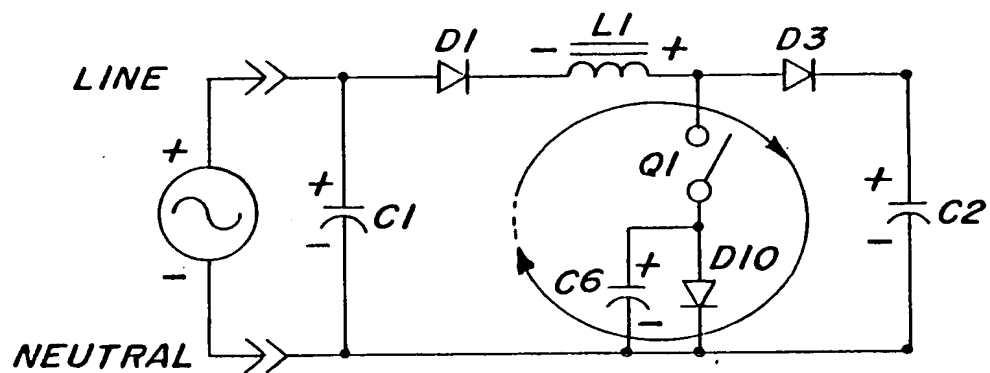


FIG. 5A

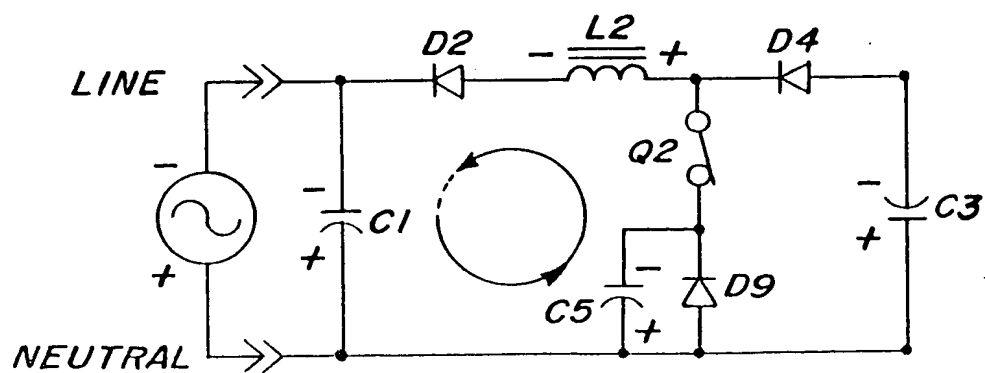


FIG. 5B

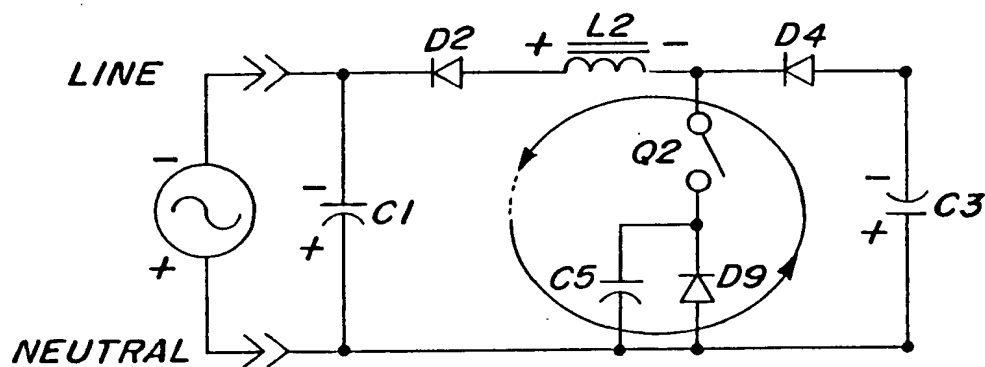


FIG. 6A

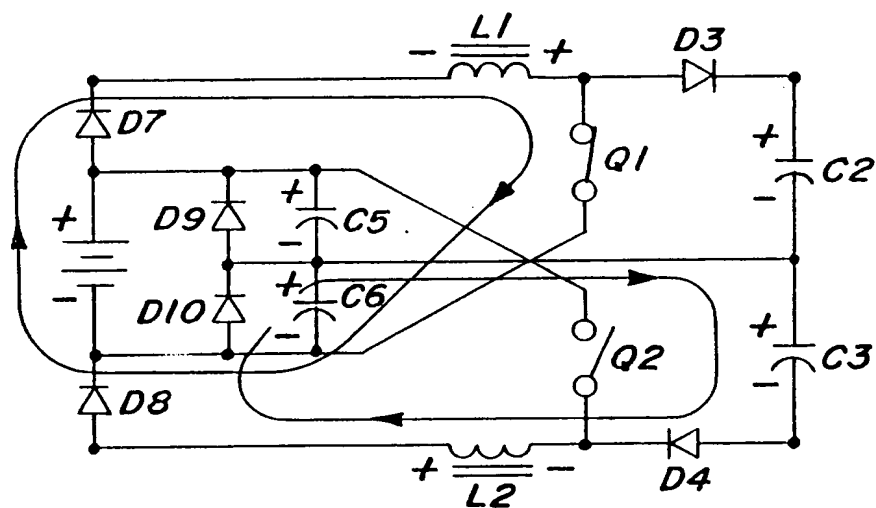


FIG. 6B

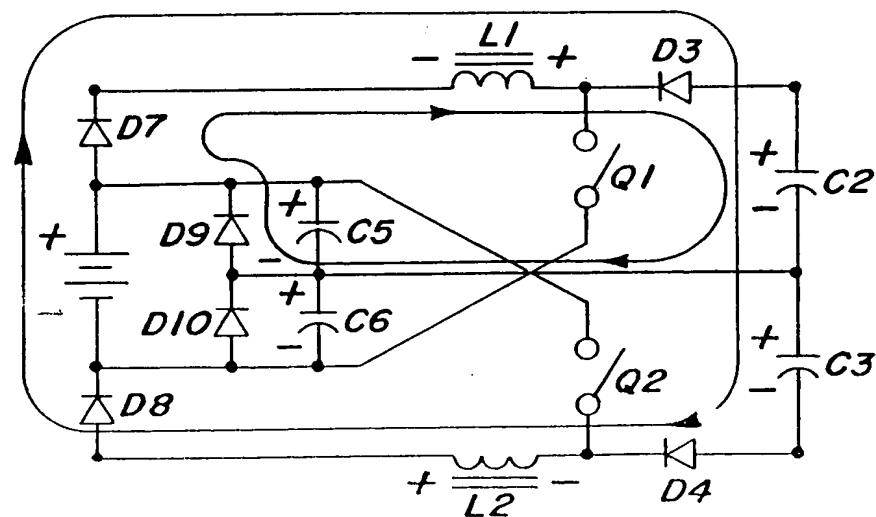


FIG. 7A

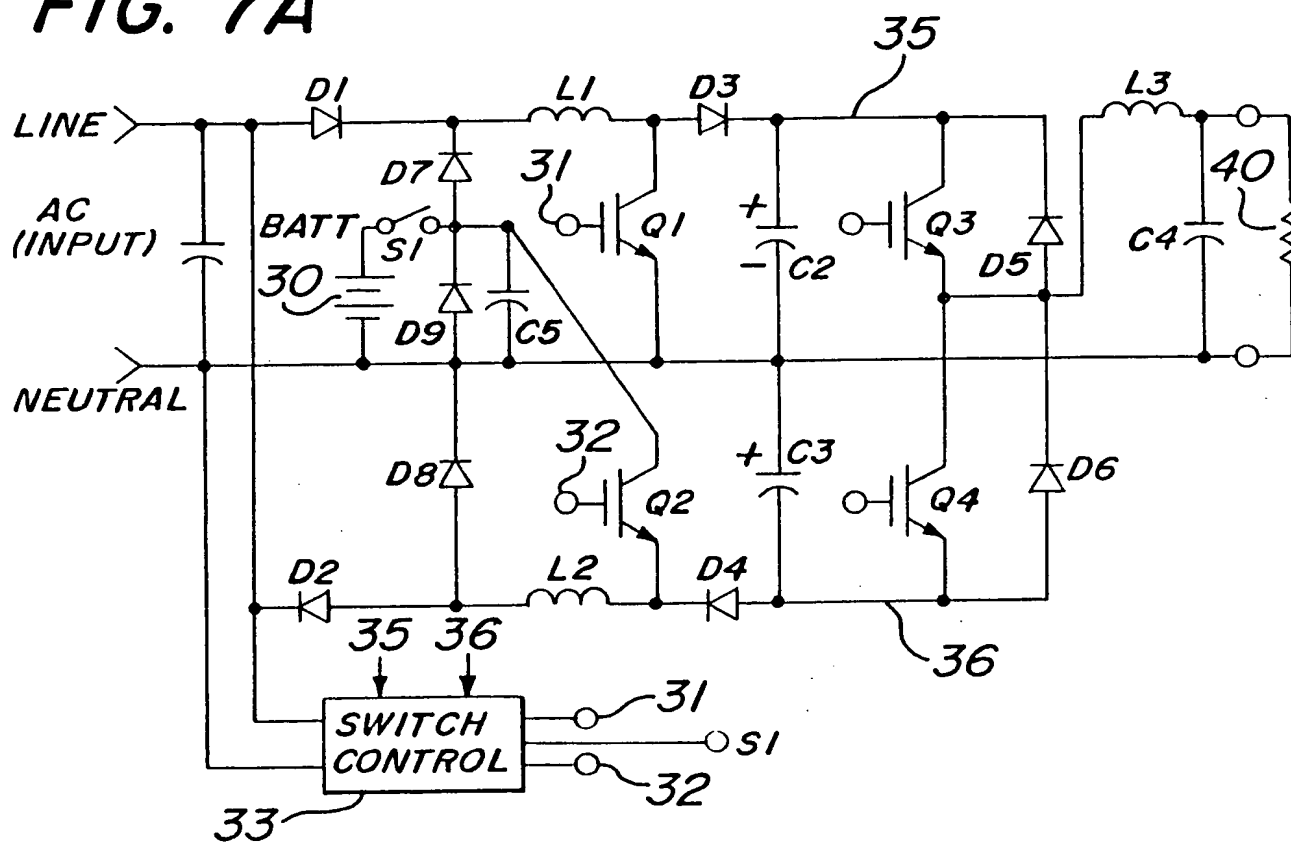


FIG. 7B

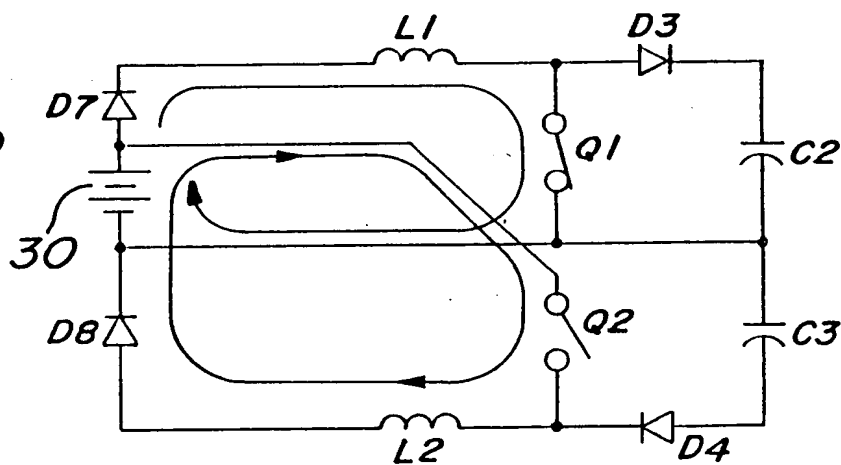


FIG. 7C

